



JC10 Rec'd PCT/

26 OCT 2005

PCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of

Applicant(s) : Rainer RUDOLPH et al.

Serial No. : 10/526,163

Filed : February 28, 2005

Title : METHOD FOR THE SYNTHESIS AND SELECTIVE BIOCATALYTIC
MODIFICATION OF PEPTIDES, PEPTIDE MIMETICS, AND PROTEINS

Docket : WP22220US

Art Unit : TBD

Customer No. : 23690

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

10-21-05

Date of Deposit

Michele Wilson

Name of Person Mailing Correspondence

Michele R. Wilson

Signature

10-21-05

Date of Signature

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §§1.56, 1.97 & 1.98

Applicants submit herewith patents, publications, and other information of which they are aware, which they believe may be material, as defined in 37 CFR §1.56(b), to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56(a). While the information referred to in this Information Disclosure Statement may be material pursuant to 37 CFR §1.56(b), the filing of this Information Disclosure Statement is not intended to, pursuant to 37 CFR §1.97(h), constitute an admission that any patent, publication, or other information referred to is, or is considered to be, material to the patentability of this invention. No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§102 & 103, and Applicants reserves the right, pursuant to 37 CFR §1.131 or otherwise, to establish otherwise. Further, pursuant to 37 CFR §1.97(g), the filing of this Statement should not be construed as a statement that a search has been made or that no other material information exists.

Serial No. 10/526,163
Docket No. WP22220US

This Information Disclosure Statement is being filed within the period set forth in 37 CFR §1.97(b) because it is believed to be filed before the mailing date of a first office action on the merits.

The Office has waived the requirement pursuant to 37 CFR §1.98(a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC §371 after June 30, 2003. Therefore, no copies of each cited U.S. patent and each cited U.S. patent application publication are enclosed, but the cited U.S. patents and the cited U.S. patent application publications are listed on PTO/SB/08A.

No additional fees are believed to be necessary, however, should any fees be deemed required, the Commissioner is authorized to charge such fees to Deposit Account 02-2958, but is not to include any payment of issue fees.

Respectfully submitted,
ROCHE DIAGNOSTICS OPERATIONS, INC.

Date: 10/6/05

By Marilyn L. Arnick
Marilyn L. Arnick
Registration No. 30,444
9115 Hague Road
Indianapolis, IN 46250-0416
Telephone: (317) 521-7561
Facsimile: (317) 521-2883

Serial No. 10/526,163
Docket No. WP22220US

This Information Disclosure Statement is being filed within the period set forth in 37 CFR §1.97(b) because it is believed to be filed before the mailing date of a first office action on the merits.

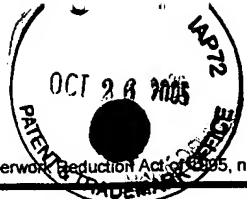
The Office has waived the requirement pursuant to 37 CFR §1.98(a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC §371 after June 30, 2003. Therefore, no copies of each cited U.S. patent and each cited U.S. patent application publication are enclosed, but the cited U.S. patents and the cited U.S. patent application publications are listed on PTO/SB/08A.

No additional fees are believed to be necessary, however, should any fees be deemed required, the Commissioner is authorized to charge such fees to Deposit Account 02-2958, but is not to include any payment of issue fees.

Respectfully submitted,
ROCHE DIAGNOSTICS OPERATIONS, INC.

Date: 10/6/05

By Marilyn L. Amick
Marilyn L. Amick
Registration No. 30,444
9115 Hague Road
Indianapolis, IN 46250-0416
Telephone: (317) 521-7561
Facsimile: (317) 521-2883



WEMMH/SB/08A (4/03)
 Approved for use through 10/31/2002. OMB 0651-0031
 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449A/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p><i>(use as many sheets as necessary)</i></p>				<i>Complete if Known</i>	
				Application Number	10/526,163
				Filing Date	February 28, 2005
				First Named Inventor	Rainer RUDOLPH
				Group Art Unit	TBD
				Examiner Name	TBD
				Attorney Docket Number	WP22220US
Sheet	1	of	3		

[illegible]

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Application of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	† ²
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	1	EP 1201657 A1	5/2/2002	CNRS		
	2	EP 1348767 A2	10/1/2003	Hitachi Software Eng.		
	3	WO 02/26701 A2	4/4/2002	SCIONIX Limited		
	4	WO 02/26772 A1	4/4/2002	F. Hoffmann-La Roche AG		
	5	WO 02/38784 A1	5/16/2002	Solvent Innovation GMBH		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s) publisher city and/or country where published	T ²
	6	Armstrong, D. et al., "Ionic Liquids as Matrixes for Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry," Anal. Chem. 2001, 73, 3679-3686	
	7	Didziapetris, R. et al., "Penicillin acylase-catalyzed protection and deprotection of amino groups as a promising approach in enzymatic peptide synthesis," FEBS 09962, August 1991, Vol. 287, No. 1,2, p. 31-33	
	8	Bordusa, F., "Nonconventional amide bond formation catalysis: programming enzyme specificity with substrate mimetics," Brazilian Journal of Medical and Biological Research (2000) 33: 469-485	
	9	Cotton, G. et al., "Insertion of a Synthetic Peptide into a Recombinant Protein Framework: A Protein Biosensor," J. Am. Chem. Soc. 1999, 121, 1100-1101	
	10	Dawson, P. et al., "Synthesis of Proteins by Native Chemical Ligation," Science, Vol. 266, Nov. 4, 1994, p. 776-779	
	11	Erbeldinger, M. et al., "Enzymatic Catalysis of Formation of Z-Aspartame in Ionic Liquid- An Alternative to Enzymatic Catalysis in Organic Solvents," Biotechnol. Prog. 2000, 16, 1129-1131	
	12	Fotouhi, N. et al., "Peptide Synthesis by Prior Thiol Capture. 6. Rates of the Disulfide Bond Forming Capture Reaction and Demonstration of the Overall Strategy by Synthesis of the C-Terminal 29-Peptide Sequence of BPTI," J. Org. Chem., 1989, 54, 2803-2817	
✓	13	Gordon, C. et al., "New developments in catalysis using ionic liquids," Applied Catalysis A: General 222 (2001) 101-117	
	14	Husun, T. et al., "Enzyme Catalysed Synthesis in Ambient Temperature Ionic Liquids," Biocatalysis and Biotransformation, Vol. 19, pp. 331-338	
✓	15	Imoto, T. et al., "Chemical Modification," A Partial Approach (T.E. Creighton ed.) pp. 247-277, IRL Press, 1989	
✓	16	Jackson, D. et al., "A Designed Peptide Ligase for Total Synthesis of Ribonuclease A with Unnatural Catalytic Residues," Science, Vol. 266, October 14, 1994. p. 243	
✓	17	Jakubke, H-D. et al., "Enzymatic Peptide Synthesis," The Peptides, Vol. 9, (Eds.: S. Udenfriend, J. Meienhofer), Academic Press, New York, 1987, Chapter 3	
	18	Kemp, D. et al., "Peptide Bond Formation by the Prior Amine Capture Principle," J. Org. Chem., Vol. 40, No. 23, 1975, p. 3465-3466	
	19	Kragl, U. et al., "Enzyme catalysis in the presence of ionic liquids," CHIMICA OGGI/chemistry today, July/August 2001, 3pp	
	20	Kullmann, W. et al., Enzymatic Peptide Synthesis, CRC Press, Boca Raton, 1987	
	21	Kullman, W. et al., "Proteases as Catalysts for Enzymic Synthesis of Opioid Peptides, The Journal of Biological Chemistry, Vol. 255, No. 17, September 10, 1980, p. 8234-8238	
	22	Laszlo, J. et al., "α-Chymotrypsin Catalysis in Imidazolium-Based Ionic Liquids," Biotechnology and Bioengineering, Vol. 75, No. 2, October 20, 2001	
	23	Liu, C-F et al., "Peptide segment ligation strategy without use of protecting groups," Proc. Natl. Acad. Sci. USA, Vol. 91, pp. 6584-6588, July 1994	
	24	MacBeath, G. et al., "Hydrolytic antibodies: variations on a theme," Chemistry & Biology 1996, Vol. 3, No. 6, p.433-445	
	25	Muir, T. et al., "Expressed protein ligation: A general method for protein engineering," Proc. Natl. Acad. Sci., Vol. 95, pp. 6705-6710, June 1998	
	26	Park, S. et al., "Biocatalysis in ionic liquids – advantages beyond green technology," Current Opinion in Biotechnology 2003, 14:432-437	
	27	Partk, S. et al., "Improved Preparation and Use of Room-Temperature Ionic Liquids in Lipase-Catalyzed Enantio – and Regioselective Acylations," J. Org. Chem. 2001, 66, 8395-8401	

Examiner Signature	Date Considered
--------------------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

on unless it contains a valid OMB control number.

[illegible]

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**